

The area of the island is about 100 miles in length by 40 in breadth.—*Comptes Rendus de l'Acad. des Sciences*, tome lxxx. pp. 1224, 1225.

On Androgynous Diptera. By Dr. LOEW.

The occurrence of characters of the two sexes in different parts of the body of insects has been noticed chiefly in those orders which are generally collected, and more especially in the Lepidoptera. Nearly 30 years ago (in 1846) Dr. Loew described (Stett. ent. Zeit. vii. p. 302) an androgynous specimen of *Beris nitens*, Latr., in which the head, thorax, wings, fore legs, and left middle and hind legs presented male characters, while the abdomen with the genitalia and the right middle and hind legs were female. This case, which is not mentioned in Hagen's list of known hermaphrodite insects (Stett. ent. Zeit. xxii. 1861), has hitherto stood alone in the order Diptera.

Dr. Loew now describes another androgynous Dipteron, namely an example of his *Synarthrus cinereiventris*, a species of the family Dolichopodidae from Texas. He describes in considerable detail the distinctive characters of the two sexes of this species, which are combined in the hermaphrodite in a way hitherto unrecorded for any insect, the head, body, and wings being entirely of normal female structure, whilst the whole of the legs display the peculiar characters of the male sex fully developed.—*Zeitschrift für die gesammten Naturwissenschaften*, Neue Folge, Band x. 1874, pp. 75–79.

The Blind Fish and some of the associated Species of the Mammoth Cave, Kentucky, probably of Marine Origin.

Mr. F. W. Putnam, in an article published in the Bulletin of the Essex Institute, vol. vi. no. 12, 1874, remarks as follows on the origin of some of the present inhabitants.

That many or, with two or three exceptions, nearly all of the thirty or forty species of vertebrates, articulates, mollusks, and still lower forms, including a few plants, now discovered in the caves of Kentucky, are of comparatively late introduction, is probable from the fact that they are so closely allied to forms living in the vicinity of the caves. But that the blind fishes, the *Chologaster*, and a few of the lower forms of articulates, such as the Lernæan parasitic on the blind fish, may have been inhabitants of the subterranean streams for a much longer period, is worthy of consideration on the following grounds:—

First, the blind-fish family has no immediate allies existing in the interior waters*, the only species of the family, in addition to

* In common with others I have considered the Heteropygii as belonging to the same order with the Cyprinodontes; but I now have, from further information of their structure, doubts as to their close association with that group. This subject will be presented on another occasion.

the three found in the Mammoth Cave, being known at present only from the rice-ditches of the low coast of South Carolina.

Second, the Lernæan parasite is much more common on marine fishes than on strictly fluviatile species, and is more decidedly a marine than a freshwater form. These facts may therefore be taken as at least indicating the probability of the early origin of some part of the great cave-system of the region of the Ohio valley; and while there may be nothing in the present structure of the caves to indicate their having been formed in part while in contact with salt water, the supposed erosion of the limestone and the modification of the early formed chambers by later action should be carefully considered before it can be denied that the caves were, in some slight part, for a time supplied with marine life. Until a specimen of *Chologaster*, or some other member of the family, has been obtained in the external waters of the Ohio valley, it is hardly logical to regard the family to which the blind fishes belong as one originally distributed in the rivers of the Ohio valley, and afterward becoming exterminated in the rivers and only existing in two such widely different localities as the coast of South Carolina and the subterranean streams of the south-western States. That marine forms of life are found in our freshwater lakes and rivers is known to be the case. The specimen of a shrimp exhibited was secured in the Green River, near one of the outlets of the Mammoth Cave. The fact that in some of the waters of Florida fishes once marine are now confined to freshwater lakes of comparatively recent formation, and that in the St. John's river, and others of that State, many marine and freshwater species are found associated, are evidence of the change that may take place in the habits of some marine animals, while a recent announcement of the *Gobiosoma* found in the Ohio river* is another instance of a marine fish living in fresh waters.—*Silliman's American Journal*, May 1875.

Note on Neobalæna marginata †.

In the 'Annals' for October last (p. 316) an awkward mistake has crept into the abstract from one of my letters to Dr. Gray, published by him as a paragraph. It is the *skull* of the calf of *Neobalæna marginata* that is 2 feet 3 inches in total length, not the calf itself.

Wellington, New Zealand,
January 19, 1875.

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* Putnam, "Notice of *Gobiosoma molestum* from the Ohio," Amer. Nat. viii. Feb. 1874.

† [We are requested by Dr. Hector to state that the above correction would have been made at an earlier date, but for the unfortunate circumstance that it was enclosed in a letter addressed to Dr. Gray which arrived in England after his death.—ED.]